

New Railway Projects.—It is understood that 246 schemes are lodged at the Board of Trade. The next consideration is, how will the Board of Trade deal with these matters? It seems now to be understood that the Board is engaged in dividing the lines into classes;—that that done, it will express an opinion on each project, and present it in the shape of a report to parliament;—but that an intimation will be given to the promoters of the general views of the Board sufficient to enable them to determine for themselves whether they will go forward or retire from the field. —*Railway Times.*

Goliath Engines.—Four of the largest locomotives ever constructed are about to be built for the Sheffield and Manchester Railway. The cylinders are to be eighteen inches, the stroke two feet, the wheels, six of them four and a quarter feet diameter, and six coupled. The weight of the engine alone, when loaded with fuel and water will be 24 tons. It is calculated that on a level they will draw separately from 1,000 to 2,000 tons.

Miscellaneous.

ANCIENT ROMAN ARCHITECTURE.—Last Thursday week, as some men were employed digging for the purpose of forming a new sewer in the New North-road, Hoxton, they discovered, at a depth of about 20 feet below the surface of the ground, a remarkable Roman structure. The first presentiment they had of approaching something wonderful was to find themselves standing upon a hard flat surface instead of the usual rough earth and stones. The fact was immediately communicated to the surveyor, who, in company with about a dozen men, repaired to the spot. After some little delay, it was determined that the tiles, &c., should be taken up, and for that purpose six men were selected to descend, who after some considerable delay, succeeded in raising several large pieces of stone and tile, underneath which was discovered a small cellar or vault, the dimensions of which were 3 feet in length by 2½ feet in width, and 3 feet 7 inches in depth, strongly tiled throughout. Several small vessels of earthenware were found, as also a small urn, supposed to be of gold. The excavation was immediately covered over, and men placed to guard it. A more wonderful specimen of ancient Roman architecture has never been discovered. —*Times.*

PROPOSED IMPROVEMENTS IN CONNECTION WITH HUNGERFORD BRIDGE.—Last week, at a meeting of the proprietors of the Hungerford and Lambeth Suspension Bridge Company, the chairman said the official estimated cost of the bridge was 104,500. The directors were now able to inform the proprietors that the work would be completed, including every expense, for the net sum of 102,500, which they would save less by 1,700, than the estimate of 1835. But the directors had now to ask the proprietors to give them a sum of money to do that which was not originally contemplated; they wanted to pass from the Helvedere road to Sutton-street (a fine thoroughfare of 40 yards wide, and built since the bridge was projected), so as to obtain a good access to the York-road. The directors found they would be able to carry out this desired approach for less than 5,000, including all expenses, and since the report was written negotiations had taken place which led the directors to hope that the property required would be obtained without the expense of going to Parliament for an Act for the purpose.

IMPORTANCE OF A PERFECT SUPPLY OF PURE WATER IN TOWNS.—It is, perhaps, too much to expect that people will be induced to return to the natural beverage, as long as it is supplied to them in the impure state in which it reaches the inhabitants of London, and of most large towns in this country;—in fact, such water is neither palatable nor wholesome, and it is one of the evils affecting the public health which calls most loudly for correction; and the remedy for which is by no means difficult. Filtering does not purify water, as it can only remove the impurities which are mechanically suspended in it, and not such as are in a state of solution. Filtering cannot be successful in depriving it of its deleterious properties; we might as well attempt to remove the poison from a solution of arsenic by filtering. —*On the Theory of Health, by J. H. Curtis, Esq.*

TESTING OF AN IRON BRIDGE IN IRELAND.—The lattice bridge which is built over the Royal Canal, on the Dublin and Drogheda Railway, and whose span is 143 feet 6 inches, was the subject of an interesting experiment on the 4th inst. After taking out all the rollers under the two west beams, by running one engine and three carriages across three times, the greatest deflection was two-tenths of an inch, and each time the bridge resumed its original position. The bridge was tested a second time the same day by running a coupled engine across the weight of the tender, eight carriages, and three trucks, averaging from eighty to ninety tons. This triple engine and engine was allowed to stand upon the bridge until Mr. Hamilton, Sir J. Macneil, and Mr. McCormick, measured the deflection, which was two-tenths of an inch, and when the train crossed the bridge, it resumed its original position. —*Drogheda Conventicle.*

PROPOSED TUNNEL UNDER GLASGOW.—The city of Glasgow is surrounded by great lines of communication; on the north by its great canals, the Forth of Clyde and Monkland, and the Edinburgh and Glasgow and Gaithrick Railways, and on the south by its magnificent river and harbour, with its communicating lines of railway. But these are cut off from all means of communication with each other by the densely populated city which intervenes. At present an enormous traffic passes over the streets in heavily-laden carts and waggons, and the proposed scheme is to connect by a great tunnel the southern with the northern side of the city. This enterprise is promoted by some of the most respectable and wealthy citizens of Glasgow, and by the great companies whose immediate interests it will directly promote. The estimate is under 150,000.

EXTRAORDINARY BRICK-MAKING.—Mr. Hadson's patent machine for making bricks is truly wonderful when compared with the amount of labour it is capable of accomplishing, and the perfect manner in which it completes its work. The stock brick dies will throw off four thousand bricks in a day, equal in all respects to the first-rate article in the market; whereas the ordinary number of bricks produced by one man in a day, in the usual mode of making them, is eight hundred. —*Hull Packet.*

ROYAL PALACE OF LINLITHGOW.—It will be gratifying to learn that the ancient and royal palace of Linlithgow has lately undergone extensive repairs, under the sanction and at the expense of the government. This venerable building forms one of the noblest piles of ancient architecture in Scotland, and, with the sweet and placid loch reposing amidst the graceful undulations of the neighbouring landscape, forms altogether an object of much beauty and interest. —*Edinburgh Herald.*

COLLEGE IMPROVEMENTS.—A public meeting, convened by the Mayor of Gloucester, was held last Thursday week for the purpose of forming an institution embracing the following objects: A public reading-room, a library for reference and circulation, a museum, lecture-room, and an observatory. The project has the support of most of the influential inhabitants both in the town and neighbourhood.

DUNDEE TRIUMPHAL ARCH.—The triumphal arch to be erected at Dundee to commemorate the landing of her Majesty and the Prince Consort at that Royal burgh, last autumn, is commenced. The subscription, with the liberal donations of Lord Panmure, Lord Douglas, and Viscount Duncan, at present exceeds 1,500.

NEW NATIONAL SCHOOLS AT HULL.—The expense of erecting these schools was 1,600. They are built in the most substantial manner, in the Tudor style, under plans furnished by the Committee of Privy Council on Education, and the National Society, and will accommodate 550 children.

LORD PEMBROKE'S TOWN RESIDENCE.—The Earl of Pembroke's splendid mansion at Carlton-terrace, which has been so long undergoing a course of decorative repair, is not expected to be ready for the reception of his lordship and establishment for a twelvemonth at the earliest.

USE OF THE ARCH AMONG THE GREEKS.—Series of drawings made by the late Mr. Hadwell during his travels in Greece display the various developments of Pelagic fortifications from the lintel of single stones resting in upright joints, to the overlapping of the stones until they reached each other, in the form of a triangle, as in the gate of the Acropolis, the entrance into the treasury of Atræus, &c. But the most remarkable monument is the subterranean chamber: complete plans and sections of that extraordinary building are given by Mr. Donaldson in the supplement to the "Antiquities of Athens," from which it appeared to have been constructed in the form of a parabolic cone, of 48 feet in diameter at the base, and 41 feet 6 inches in height, by means of rings of regular masonry, overlapping each other until they reached the apex, where the aperture was closed by a flat stone. From this and other buildings of a similar kind, there is reason to infer that the ancient Greeks had very imperfect notions of the arch. Mr. Kinnaird, in his "Description of the Antiquities of Delos," gives a representation of a portal or gateway on the ascent of Mount Cynthus, formed to support the wall of the ancient fortifications. The entrance was constructed with ten large stones inclined to each other, like those at the aperture into the great Egyptian pyramid. It was perhaps the earliest specimen of Pelagic architecture in Greece, displaying the first step towards the principle of the arch. That it was known by the Etruscans seems evident from the remains of arches and bridges now existing in the country of the Volsci, in Italy; and the researches of travellers in that country, within the last few years, have brought to light many curious examples, anterior to the period of the Cloaca of Rome, and the tunnel of Albano by Ancus Martius. Mr. Rennie is of opinion, from his examination of the subject, that there exists no sufficient evidence to establish the knowledge or use of the arch among the Greeks. —*Railway Chronicle.*

INDUSTRIABLE CARBONIC PAINT.—A patent has recently been taken out in America by J. Weissman, of Philadelphia, for an indestructible anti-corrosive pigment. The patentee says: "The nature of my invention consists in combining the metal of carbon, or purified graphite, with caoutchouc and shellac, together with a small portion of acetate, or sugar of lead; the ingredients being mixed with linseed oil and spirits of turpentine." *Claim.*—"What I claim as my invention, and desire to secure by letters patent, is the combination of carbon, or pure graphite, with caoutchouc and shellac, together with acetate of lead, linseed oil, and spirits of turpentine, for the purpose set forth, forming a perfectly indestructible anti-corrosive pigment, which also serves the purposes of anti-attrition." —*Franklin Institute.*

THE SMOKE NUISANCE.—Manchester is to be reformed as to its smokiness. It seems that last session an Act was passed by Parliament imposing a penalty of 40s. a week on all furnaces in Manchester and Salford that should not, after the 1st January next, consume their own smoke; and at a recent meeting the town council undertook to enforce the Act. Some manufacturers have already adopted very simple and efficacious contrivances for the purpose by driving a stream of atmospheric air into the furnace.

TWO NEW POLICE COURTS.—An order has passed the Privy Council appointing Monday, the 3rd inst., as the day when the Union Hall Establishment will be removed to the new court at St. George's, Borough; and that of Lambeth street, Whitechapel, is the one just finished in Kennington-lane. A considerable change has been made in the districts attached to each of the metropolitan police courts.

NEW SECESSION COLLEGE, EDINBURGH.—The college for the new secession from the Established Church of Scotland is to be in Edinburgh. The sum required was 20,000, and 12,000 of this sum has been raised from as many subscribers as 1,000.

PROPORTION OF HOUSES TO POPULATION BETWEEN THE UNITED STATES AND ENGLAND.—The total number of houses in the United States is 1,300,000, while in England we have 549,137—not half the quantity in proportion to the population.